

Wed Jun 25 15:53:49 2003

us-09-622-613b-4.rag

GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: June 25, 2003, 14:20:41 ; Search time 31.2 Seconds

(without alignments)
444.169 Million cell updates/sec

Title: US-09-622-613b-4

Perfect score: 579
Sequence: 1 QDMLTFQKKHLTNRDVCN.....TFCVTCENQAPHFVGVGHC 104

Scoring table:

BLOSUM62
Gapop 10.0 , Gapext 0.5

Archived: 908470 seqs, 133250620 residues

Total number of hits satisfying chosen parameters: 908470

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database :

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23: /SID2/gcgdata/geneseq/geneseq-emb1/AA2002.DAT:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	571	98.6	104	20	AA198866
2	571	98.6	105	20	AA198869
3	569	98.3	104	20	AA198865
4	569	98.3	105	20	AA198879
5	569	98.3	127	20	AA198879
6	564	97.4	104	20	AA198870
7	564	97.4	105	20	AA198871
8	549	94.8	104	18	AA198871
9	547	94.5	104	18	AA198871
10	547	94.5	104	22	AA198871

evidence that seq in PCT/US99/06641 and US application do not match

11	547	94.5	379	18	AA198866
12	546	94.3	104	12	AA198866
13	544	94.0	104	12	AA198866
14	544	94.0	104	15	AA198866
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20	544	94.0	104	22	AA198866
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22	544	94.0	105	20	AA198866
23	544	94.0	355	18	AA198866
24	544	94.0	358	18	AA198866
25	542	93.6	106	18	AA198866
26	542	93.6	107	18	AA198866
27	542	93.6	112	18	AA198866
28	542	93.6	251	18	AA198866
29	542	93.6	355	18	AA198866
30	542	93.6	355	18	AA198866
31	542	93.6	355	18	AA198866
32	542	93.6	366	18	AA198866
33	539	93.1	104	18	AA198866
34	537	92.7	105	18	AA198866
35	537	92.7	105	18	AA198866
36	533	92.1	358	18	AA198866
37	533	92.1	365	18	AA198866
38	518	89.5	107	18	AA198866
39	481	83.1	360	18	AA198866
40	474.5	82.0	111	18	AA198866
41	436	75.3	83	20	AA198866
42	436	75.3	83	20	AA198866
43	276.5	48.9	111	20	AA198866
44	276.5	47.8	110	20	AA198866
45	276.5	47.8	110	20	AA198866

ALIGNMENTS

RESULT 1	
AA198866	
ID	AA198866 standard: Protein: 104 AA.
AC	AA198866:
XX	
DT	25-JAN-2000 (first entry)
XX	
DE	Recombinant RapRI Met23Leu amino acid sequence.
XX	
KW	Recombinant Rana pipiens ribonuclease: RapRI Met23Leu; covalently bound
KW	LL2 antibody: ligand binding moiety: CD22; cancerous B cell; RBC
KW	Kaposi's sarcoma; human chorionic gonadotropin; HCG; signal peptide
KW	recombinant ribonuclease; cytotoxic fusion protein; cancer; fct
KW	autoimmune disease.
XX	
OS	Rana pipiens.
OS	Synthetic.
XX	
FT	Key
FT	Misc-difference 23
FT	Location/Qualifiers
XX	/note= "Wild type Met replaced with Leu"
XX	
XX	W09950398-A2.
XX	
XX	07-OCT-1999.
XX	
XX	26-MAR-1999; 99WO-US06641.
XX	
XX	27-MAR-1998; 98US-0079751.
XX	
XX	(USSH) US DEPT HEALTH & HUMAN SERVICES.

PI Newton DL, Rybak SM;
 XX
 XX MPI: 1999-610847/52.
 DR N-PSDB: AA208125.
 XX
 PT New recombinant ribonucleases, used for killing target cells, e.g. for
 XX treating cancers, viral infections or autoimmune diseases .
 XX
 PS Claim 34; Page 56; 71pp; English.
 XX
 CC The present sequence is a recombinant Rana pipiens ribonuclease (RapRL1)
 CC protein with Met23Leu. Carboxy terminal end of recombinant RapRL1 has a
 CC covalently bound ligand binding moiety, which can be a LL2 antibody
 CC directed against CD22 on cancerous B cells or human chorionic
 CC gonadotropin (hCG) effective against Kaposi's sarcoma cells. Recombinant
 CC ribonucleases can be expressed in bacteria without an N-terminal
 CC methionine due to the presence of a signal peptide that is cleaved by
 CC bacteria. The soluble expression of ribonuclease allows the proteins to
 CC be fused in-frame with ligand binding moieties to form cytotoxic fusion
 CC proteins. They can be used for treatment of cancer and autoimmune
 CC diseases.
 XX
 XX Sequence 104 AA:
 Query Match 98.6%; Score 571; DB 20; Length 104;
 Best Local Similarity 99.0%; Pred. No. 2,4e-62;
 Matches 103; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
 QY 1 ODMLEFQKKHLNTRDVCNNILSTNLFHCKDKNTFYSRPEPKAICGIIASKNVLT 60
 Db 1 ODMLEFQKKHLNTRDVCNNILSTNLFHCKDKNTFYSRPEPKAICGIIASKNVLT 60
 QY 61 FEFYLSDCNVTSPCKYKTKKSTNFCVTCENQAPVHFVGVC 104
 Db 61 SEFYLSDCNVTSPCKYKTKKSTNFCVTCENQAPVHFVGVC 104
 RESULT 2
 AAY28865
 ID AAY28865 standard; Protein: 105 AA.
 XX
 AC AAY28865;
 XX
 DT 25-JAN-2000 (first entry)
 XX
 DE Recombinant Met(-1) RapRL1 Met23Leu-(His)6 protein.
 XX
 KW Recombinant Met(-1) Rana pipiens ribonuclease Met23Leu-(His)6; RapRL1;
 KW CD22; covalently bound; LL2 antibody; ligand binding moiety; RNase;
 KW cancerous B cell; Kaposi's sarcoma; human chorionic gonadotropin; hCG;
 KW signal peptide; recombinant ribonuclease; cytotoxic fusion protein;
 KW cancer; frog; autoimmune disease.
 XX
 OS Rana pipiens.
 OS Synthetic.
 XX
 XX Key Location/Qualifiers
 FH Misc-difference 1 /note= "(His)6 histidine tag attached to N-terminal Met"
 FT Misc-difference 1 /note= "Met not found in wild type RapRL1"
 FT Misc-difference 24 /note= "Wild type Met replaced with Leu"
 FT
 XX WO9950398-A2.
 XX
 PD 07-OCT-1999.
 XX
 PD 26-MAR-1999; 99WO-US06641.
 XX
 PE MPI: 1999-610847/52.
 XX
 PR 27-MAR-1998; 98US-0079751.
 XX
 PA (USSH) US DEPT HEALTH & HUMAN SERVICES.

XX
 PI Newton DL, Rybak SM;
 XX
 XX MPI: 1999-610847/52.
 DR N-PSDB: AA208127.
 XX
 PT New recombinant ribonucleases, used for killing target cells, e.g. for
 XX treating cancers, viral infections or autoimmune diseases .
 XX
 PS Claim 4; Page 59; 71pp; English.
 XX
 CC The present sequence is a recombinant Rana pipiens ribonuclease protein
 CC (RapRL1) with Met at position 1 attached to (His)6 tag and Met24Leu.
 CC Carboxy terminal end of recombinant RapRL1 has a covalently bound ligand
 CC binding moiety, which can be a LL2 antibody directed against CD22 on
 CC cancerous B cells or human chorionic gonadotropin (hCG) effective
 CC against Kaposi's sarcoma cells. Recombinant ribonucleases can be
 CC expressed in bacteria without an N-terminal methionine due to the
 CC presence of a signal peptide that is cleaved by bacteria. The soluble
 CC expression of ribonuclease allows the proteins to be fused in-frame with
 CC ligand binding moieties to form cytotoxic fusion proteins. They can be
 CC used for treatment of cancer and autoimmune diseases.
 XX
 XX Sequence 105 AA:
 Query Match 98.6%; Score 571; DB 20; Length 105;
 Best Local Similarity 99.0%; Pred. No. 2,4e-62;
 Matches 103; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
 QY 1 ODMLEFQKKHLNTRDVCNNILSTNLFHCKDKNTFYSRPEPKAICGIIASKNVLT 60
 Db 2 ODMLEFQKKHLNTRDVCNNILSTNLFHCKDKNTFYSRPEPKAICGIIASKNVLT 61
 QY 61 FEFYLSDCNVTSPCKYKTKKSTNFCVTCENQAPVHFVGVC 104
 Db 62 SEFYLSDCNVTSPCKYKTKKSTNFCVTCENQAPVHFVGVC 105
 RESULT 3
 AAY28865
 ID AAY28865 standard; Protein: 104 AA.
 XX
 AC AAY28865;
 XX
 DT 25-JAN-2000 (first entry)
 XX
 DE Rana pipiens liver ribonuclease (RapRL1).
 XX
 KW Rana pipiens liver ribonuclease; RapRL1; covalently bound; LL2 antibody;
 KW ligand binding moiety; CD22; cancerous B cell; Kaposi's Sarcoma; frog;
 KW human chorionic gonadotropin; hCG; recombinant ribonuclease; RNase;
 KW signal peptide; cytotoxic fusion protein; cancer; autoimmune disease.
 XX
 OS Rana pipiens.
 OS Synthetic.
 XX
 XX Key Location/Qualifiers
 FH WO9950398-A2.
 PD 07-OCT-1999.
 XX
 PD 26-MAR-1999; 99WO-US06641.
 XX
 PE MPI: 1999-610847/52.
 XX
 PR 27-MAR-1998; 98US-0079751.
 XX
 PA (USSH) US DEPT HEALTH & HUMAN SERVICES.
 XX
 PI Newton DL, Rybak SM;
 XX
 XX MPI: 1999-610847/52.
 DR N-PSDB: AA208124.
 XX
 PT New recombinant ribonucleases, used for killing target cells, e.g. for
 XX treating cancers, viral infections or autoimmune diseases .
 XX

GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: June 25, 2003, 14:20:41 ; Search time 31.5 Seconds

(without alignments)
444.169 Million cell updates/sec

Title: US-09-622-613b-8

Perfect score: 582
Sequence: 1 HQDWLTFQKHLNTRDVC.....TFQVTCENQAPVHFVGCHC 105

Scoring table: HIOSUM62

Gapop 10.0, Gapext 0.5

Number of hits satisfying chosen parameters: 908470

Total number of hits satisfying chosen parameters: 908470

Minimum DB seq length: 0

Maximum DB seq length: 200000000

Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

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2. /SID2/gcgdata/geneSeq/geneSeq-emb1/AA1980.DAT.*
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5. /SID2/gcgdata/geneSeq/geneSeq-emb1/AA1983.DAT.*
6. /SID2/gcgdata/geneSeq/geneSeq-emb1/AA1984.DAT.*
7. /SID2/gcgdata/geneSeq/geneSeq-emb1/AA1985.DAT.*
8. /SID2/gcgdata/geneSeq/geneSeq-emb1/AA1986.DAT.*
9. /SID2/gcgdata/geneSeq/geneSeq-emb1/AA1987.DAT.*
10. /SID2/gcgdata/geneSeq/geneSeq-emb1/AA1988.DAT.*
11. /SID2/gcgdata/geneSeq/geneSeq-emb1/AA1989.DAT.*
12. /SID2/gcgdata/geneSeq/geneSeq-emb1/AA1990.DAT.*
13. /SID2/gcgdata/geneSeq/geneSeq-emb1/AA1991.DAT.*
14. /SID2/gcgdata/geneSeq/geneSeq-emb1/AA1992.DAT.*
15. /SID2/gcgdata/geneSeq/geneSeq-emb1/AA1993.DAT.*
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24. /SID2/gcgdata/geneSeq/geneSeq-emb1/AA2002.DAT.*

Pred. NO. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	567	97.4	105	20	AAV28869
2	565	97.1	105	20	AAV28867
3	562	96.6	104	20	AAV28866
4	560	96.2	105	20	AAV28865
5	560	96.2	105	20	AAV28871
6	560	96.2	127	20	AAV28879
7	555	95.4	104	20	AAV28870
8	540	92.8	104	18	AAW06544
9	540	92.8	105	18	AAW5123
10	540	92.8	105	20	AAV39400

11	540	92.8	355	18	AAW35125
12	540	92.8	358	18	AAW35130
13	538	92.4	104	18	AAW30301
14	538	92.4	104	22	AAW31666
15	538	92.4	112	18	AAW35118
16	538	92.4	251	18	AAW35134
17	538	92.4	254	18	AAW35135
18	538	92.4	355	18	AAW35129
19	538	92.4	355	18	AAW35133
20	538	92.4	366	18	AAW35132
21	538	92.4	379	18	AAW35126
22	537	92.3	104	18	AAW30302
23	535	91.9	104	12	AAW12344
24	535	91.9	104	15	AAW47303
25	535	91.9	104	17	AAW00736
26	535	91.9	104	18	AAW06543
27	535	91.9	104	18	AAW14065
28	535	91.9	104	20	AAW33322
29	535	91.9	104	20	AAW88233
30	535	91.9	104	22	AAW31667
31	533	91.6	105	18	AAW35116
32	533	91.6	106	18	AAW35122
33	533	91.6	107	18	AAW35117
34	532	91.4	105	18	AAW35115
35	530	91.1	104	18	AAW18224
36	529	90.9	358	18	AAW35127
37	529	90.9	365	18	AAW35131
38	510	87.6	107	18	AAW35120
39	477	82.0	360	18	AAW35128
40	465.5	80.0	111	18	AAW35121
41	427	73.4	83	18	AAW35119
42	427	73.4	83	20	AAW88234
43	274	47.1	111	20	AAW33321
44	272.5	46.8	111	20	AAV28876
45	271.5	46.6	111	20	AAV28873

ALIGNMENTS

RESULT 1	AAV28869	AAV28869 standard; Protein; 105 AA.
ID	AAV28869;	
AC	AAV28869;	
XX		
DT	25-JAN-2000	(first entry)
XX		
DE	Recombinant Met(-1) RapL1 Met23Leu-(His)6 protein.	
XX		
KW	Recombinant Met(-1) Rana pipiens ribonuclease Met23Leu-(His)6; RapL1;	
KW	CD22; covalently bound; IL2 antibody; ligand binding moiety; RNase;	
KW	cancerous B cell; Kaposi's sarcoma; human chorionic gonadotropin; hCG;	
KW	signal peptide; recombinant ribonuclease; cytotoxic fusion protein;	
KW	cancer; frog; autoimmune disease.	
XX		
OS	Rana pipiens.	
XX		
OS	Synthetic.	
XX		
FH	Key	Location/Qualifiers
FT	Misc-difference 1	/note= "(His)6 histidine tag attached to N-terminal Met"
FT	Misc-difference 1	/note= "Met not found in wild type RapL1"
FT	Misc-difference 24	/note= "Wild type Met replaced with Leu"
XX		
PN	W09950398-A2.	
XX		
PD	07-OCT-1999.	
XX		
PF	26-MAR-1999.	99MO-US06641.
XX		

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Antitumour protein
Onconase (RTM) pro
Frog onconase prot
Rana pipiens RNase
Amino acid sequenc
R. pipiens recombi
R. pipiens recombi
R. pipiens recombi
R. pipiens recombi
Antitumour generi
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R. pipiens recombi
R. pipiens recombi
R. pipiens recombi
R. pipiens recombi
R. pipiens clone R
Rana pipiens RNase
Frog lectin protei
Recombinant Met(-1
Recombinant Met(-1

PR 27-MAR-1998; 98US-0079751.
 XX (USSH) US DEPT HEALTH & HUMAN SERVICES.
 PA Newton DL, Rybak SM;
 PI MPI, 1999-610847/52.
 DR N-PSDB; AA208126.
 XX
 PT New recombinant ribonucleases, used for killing target cells, e.g. for
 XX treating cancers, viral infections or autoimmune diseases -
 PS Claim 4; Page 59; 71pp; English.
 CC The present sequence is a recombinant Rana pipiens ribonuclease protein
 CC (RapLRI) with Met at position 1 attached to (His)6 tag and Met24Leu.
 CC Carboxy terminal end of recombinant RapLRI has a covalently bound ligand
 CC binding moiety, which can be a IL2 antibody directed against CD22 on
 CC cancerous B cells or human chorionic gonadotrophin (hCG) effective
 CC against Kapos1's sarcoma cells. Recombinant ribonucleases can be
 CC expressed in bacteria without an N-terminal methionine due to the
 CC presence of a signal peptide that is cleaved by bacteria. The soluble
 CC expression of ribonuclease allows the proteins to be fused in-frame with
 CC ligand binding moieties to form cytotoxic fusion proteins. They can be
 CC used for treatment of cancer and autoimmune diseases.

Query Match 97.4%; Score 567; DB 20; Length 105;
 Best Local Similarity 98.1%; Pred. No. 1,3e-60;
 Matches 103; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

QY 1 MODMLTFQKKHLNTRDVCNNILSTNLFHCKDKNTFIYSRPEPKAICKGIASKNVLT 60
 D1 1 MODMLTFQKKHLNTRDVCNNILSTNLFHCKDKNTFIYSRPEPKAICKGIASKNVLT 60
 QY 61 TFEFYLSDCNVTSRPPCKYKLRKSTTFVCVCENQAPVHVGVC 105
 D1 61 TFEFYLSDCNVTSRPPCKYKLRKSTTFVCVCENQAPVHVGVC 105

RESULT 3
 ID AAY28866 standard; Protein; 105 AA.
 AC AAY28866;
 XX
 XX 25-JAN-2000 (first entry)

DE Recombinant Met(-1) RapLRI.
 KW Recombinant Rana pipiens ribonuclease; RapLRI; CD22; RNase;
 KW covalently bound; IL2 antibody; ligand binding moiety; cancerous B cell;
 KW Kapos1's sarcoma; human chorionic gonadotrophin; hCG; signal peptide;
 KW recombinant ribonuclease; cytotoxic fusion protein; cancer; frog;
 KM autoimmune disease.
 OS Rana pipiens.
 OS Synthetic.
 OS
 FT key Location/Qualifiers
 FT Misc-difference 1 /note= "Met not found in wild type RapLRI"

XX WO9950398-A2.
 XX
 XX 07-OCT-1999.
 PD
 XX 26-MAR-1999; 99WO-US06641.
 XX /PF
 XX 27-MAR-1998; 98US-0079751.
 PR
 XX (USSH) US DEPT HEALTH & HUMAN SERVICES.
 PA
 XX

XX
 PI Newton DL, Rybak SM;
 XX
 DR MPI, 1999-610847/52.
 DR N-PSDB; AA208126.
 XX
 PT New recombinant ribonucleases, used for killing target cells, e.g. for
 XX treating cancers, viral infections or autoimmune diseases -
 PS Claim 34; Page 57; 71pp; English.

CC The present sequence is a recombinant Rana pipiens ribonuclease (RapLRI)
 CC protein with Met at position 1. Carboxy terminal end of recombinant
 CC RapLRI has a covalently bound ligand binding moiety, which can be a IL2
 CC antibody directed against CD22 on cancerous B cells or human chorionic
 CC gonadotrophin (hCG) effective against Kapos1's sarcoma cells. Recombinant
 CC ribonucleases can be expressed in bacteria without an N-terminal
 CC methionine due to the presence of a signal peptide that is cleaved by
 CC bacteria. The soluble expression of ribonuclease allows the proteins to
 CC be fused in-frame with ligand binding moieties to form cytotoxic fusion
 CC proteins. They can be used for treatment of cancer and autoimmune
 CC diseases.

Query Match 97.1%; Score 565; DB 20; Length 105;
 Best Local Similarity 97.1%; Pred. No. 2,2e-60;
 Matches 102; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

QY 1 MODMLTFQKKHLNTRDVCNNILSTNLFHCKDKNTFIYSRPEPKAICKGIASKNVLT 60
 Db 1 MODMLTFQKKHLNTRDVCNNILSTNLFHCKDKNTFIYSRPEPKAICKGIASKNVLT 60
 QY 61 TFEFYLSDCNVTSRPPCKYKLRKSTTFVCVCENQAPVHVGVC 105
 Db 61 TFEFYLSDCNVTSRPPCKYKLRKSTTFVCVCENQAPVHVGVC 105

RESULT 3
 ID AAY28866 standard; Protein; 104 AA.
 AC AAY28866;
 XX
 XX 25-JAN-2000 (first entry)

DE Recombinant RapLRI Met23Leu amino acid sequence.
 KW Recombinant Rana pipiens ribonuclease; RapLRI Met23Leu; covalently bound;
 KW IL2 antibody; ligand binding moiety; CD22; cancerous B cell; RNase;
 KW Kapos1's sarcoma; human chorionic gonadotrophin; hCG; signal peptide;
 KW recombinant ribonuclease; cytotoxic fusion protein; cancer; frog;
 KM autoimmune disease.
 OS Rana pipiens.
 OS Synthetic.
 OS
 FT key Location/Qualifiers
 FT Misc-difference 23 /note= "Wild type Met replaced with Leu"

XX WO9950398-A2.
 XX
 XX 07-OCT-1999.
 PD
 XX 26-MAR-1999; 99WO-US06641.
 XX /PF
 XX 27-MAR-1998; 98US-0079751.
 PR
 XX (USSH) US DEPT HEALTH & HUMAN SERVICES.
 PA
 XX Newton DL, Rybak SM;
 PI
 XX

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OM protein - protein search, using sw model

Run on: June 25, 2003, 14:20:41 ; Search time 33.3 Seconds

(without alignments)
444.169 Million cell updates/sec

Title: US-09-622-613b-17

Perfect score: 606
Sequence: 1 MGNMATEQCKHINPILCN.....ICVCEQNPVHPAGIGRCP 111

Scoring table:

BLOSUM62
Gapop 10.0 , Gapext 0.5

Archived: 908470 seqs, 133250620 residues

Total number of hits satisfying chosen parameters: 908470

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : A_Geneseq.101002:*

1: /SID2/gcgdata/geneseq/geneseq-emb1/AA1980.DAT:*

2: /SID2/gcgdata/geneseq/geneseq-emb1/AA1981.DAT:*

3: /SID2/gcgdata/geneseq/geneseq-emb1/AA1982.DAT:*

4: /SID2/gcgdata/geneseq/geneseq-emb1/AA1983.DAT:*

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8: /SID2/gcgdata/geneseq/geneseq-emb1/AA1987.DAT:*

9: /SID2/gcgdata/geneseq/geneseq-emb1/AA1988.DAT:*

10: /SID2/gcgdata/geneseq/geneseq-emb1/AA1989.DAT:*

11: /SID2/gcgdata/geneseq/geneseq-emb1/AA1990.DAT:*

12: /SID2/gcgdata/geneseq/geneseq-emb1/AA1991.DAT:*

13: /SID2/gcgdata/geneseq/geneseq-emb1/AA1992.DAT:*

14: /SID2/gcgdata/geneseq/geneseq-emb1/AA1993.DAT:*

15: /SID2/gcgdata/geneseq/geneseq-emb1/AA1994.DAT:*

16: /SID2/gcgdata/geneseq/geneseq-emb1/AA1995.DAT:*

17: /SID2/gcgdata/geneseq/geneseq-emb1/AA1996.DAT:*

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20: /SID2/gcgdata/geneseq/geneseq-emb1/AA1999.DAT:*

21: /SID2/gcgdata/geneseq/geneseq-emb1/AA2000.DAT:*

22: /SID2/gcgdata/geneseq/geneseq-emb1/AA2001.DAT:*

23: /SID2/gcgdata/geneseq/geneseq-emb1/AA2002.DAT:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	601	99.2	111	20	AA28873
2	596	98.3	110	20	AA28872
3	596	98.3	111	20	AA28878
4	595	98.2	111	20	AA28876
5	591	97.5	110	20	AA28877
6	590	97.4	110	20	AA28874
7	582.5	96.1	111	20	AA28872
8	280.5	46.3	105	20	AA28867
9	278.5	46.0	104	18	AAW06544
10	277.5	45.8	105	20	AA28869

11	276.5	45.6	105	20	AA28865
12	275.5	45.5	104	20	AA28871
13	275.5	45.5	105	20	AA28879
14	275.5	45.5	127	20	AA28879
15	273.5	45.1	105	18	AAW35123
16	273.5	45.1	355	18	AAW35125
17	273.5	45.0	104	20	AAW35130
18	272.5	44.8	104	18	AAW35136
19	271.5	44.8	104	18	AAW35130
20	271.5	44.8	104	22	AAW35136
21	271.5	44.8	112	18	AAW35118
22	271.5	44.8	251	18	AAW35134
23	271.5	44.8	254	18	AAW35135
24	271.5	44.8	355	18	AAW35129
25	271.5	44.8	355	18	AAW35133
26	271.5	44.8	366	18	AAW35132
27	271.5	44.8	379	18	AAW35126
28	270.5	44.6	104	20	AAW28870
29	268.5	44.3	104	12	AAW12344
30	268.5	44.3	104	15	AAW47303
31	268.5	44.3	104	17	AAW07336
32	268.5	44.3	104	18	AAW06543
33	268.5	44.3	104	18	AAW44065
34	268.5	44.3	104	20	AAW33322
35	268.5	44.3	104	20	AAW88233
36	266.5	44.0	104	22	AAW31667
37	266.5	44.0	105	18	AAW35116
38	266.5	44.0	106	18	AAW35122
39	266.5	44.0	107	18	AAW35117
40	265.5	43.8	104	18	AAW30302
41	265.5	43.8	105	18	AAW35115
42	262.5	43.3	358	18	AAW35127
43	262.5	43.3	365	18	AAW35131
44	261.5	43.2	104	18	AAW18224
45	244.5	40.3	107	18	AAW35120

ALIGNMENTS

RESULT 1	
AA28873	
ID	AA28873 standard; Protein; 111 AA.
XX	
AC	AA28873;
XX	
DT	25-JAN-2000 (first entry)
XX	
DE	Recombinant Met(-1) RacOR1.
XX	
KW	Recombinant Met(-1) Rana catesbeiana oocyte ribonuclease; RacOR1; CD22;
KW	covalently bound; L22 antibody; ligand binding moiety; cancerous B cell;
KW	Kaposi's sarcoma; human chorionic gonadotropin; hCG; signal peptide;
KW	recombinant ribonuclease; cytotoxic fusion protein; cancer; bullfrog;
KW	RNase; autoimmune disease.
XX	
OS	Rana catesbeiana.
XX	
XX	Synthetic.
FT	Key
FT	Misc-difference 1
FT	Location/Qualifiers
XX	/note= "Met not found in wild type RacOR1"
PN	WO950398-A2.
XX	
PD	07-OCT-1999.
XX	
PF	26-MAR-1999; 99WO-US06641.
XX	
PR	27-MAR-1998; 98US-0079751.
XX	
PA	(USSH) US DEPT HEALTH & HUMAN SERVICES.
XX	

Recombinant Met(-1) Rana catesbeiana oocyte ribonuclease; RacOR1; CD22; covalently bound; L22 antibody; ligand binding moiety; cancerous B cell; Kaposi's sarcoma; human chorionic gonadotropin; hCG; signal peptide; recombinant ribonuclease; cytotoxic fusion protein; cancer; bullfrog; RNase; autoimmune disease.

Rana catesbeiana.

Synthetic.

Key

Misc-difference 1

Location/Qualifiers

/note= "Met not found in wild type RacOR1"

WO950398-A2.

07-OCT-1999.

26-MAR-1999; 99WO-US06641.

27-MAR-1998; 98US-0079751.

(USSH) US DEPT HEALTH & HUMAN SERVICES.

New recombinant ribonucleases, used for killing target cells, e.g. for treating cancers, viral infections or autoimmune diseases

-

Claim 22; Page 63; 71pp; English.

The present sequence is a recombinant Rana catesbeiana oocyte ribonuclease (RacOR1) protein with Met at position 1. Carboxy terminal end of recombinant RacOR1 has a covalently bound ligand binding moiety, which can be a LL2 antibody directed against CD22 on cancerous B cells or human chorionic gonadotropin (hCG) effective against Kaposi's sarcoma cells. Recombinant ribonucleases can be expressed in bacteria without an N-terminal methionine due to the presence of a signal peptide that is cleaved by bacteria. The soluble expression of ribonuclease allows the proteins to be fused in-frame with ligand binding moieties to form cytotoxic fusion proteins. They can be used for treatment of cancer and autoimmune diseases.

Sequence 111 AA;

Query Match 99.1%; Score 601; DB 20; Length 111;
Best Local Similarity 99.1%; Pred. No. 8e-62;
Matches 110; Conservative 0; Mismatches 1; Indels 0; Gaps 0

OY 1 MNMNTFOOKHILNTPICNTIMDNIIYGCCFRVTTFIRSSATVKAICTGVINMV 60
 | ||||| ||||||| ||||||| ||||||| ||||||| ||||||| |||||||
DB 1 MNMNTFQCKHILNPPICTMDNNIIVGCGKRVNFITTSATTVAICTGVINNV 60
OY 61 LSTRFOALTCRTSITPRPCYSSTRETNVCVCENOVPVFAGIGRCP 111
 | ||||| ||||||| ||||||| ||||||| ||||||| ||||||| |||||||
Db 61 LSTRFOALTCRTSITPRPCYSSTRETNVICVCENOVPVFAGIGRCP 111

RESULT 2
AAAY28672
ID AAY28672 standard; Protein; 110 AA.
XX AAY28672;
AC AAY28672;
DT 25-JAN-2000 (first entry)
DE Rana catesbeiana oocyte ribonuclease (RacOR1) amino acid sequence.
KW Rana catesbeiana oocyte ribonuclease; RacOR1; covalently bound; CD22;
RW IL2 antibody; ligand binding moiety; cancerous B cell; Kaposi's Sarcoma;
KY human chorionic gonadotrophin; hcg; recombinant ribonuclease; bullfrog;
RNase. signal peptide; cytotoxic fusion protein; cancer; autoimmune disease;
OS Rana catesbeiana.
Synthetic.
PN WO9950398-A2.
PD 07-OCT-1999.
PE 26-MAR-1999; 99WO-US06641.
PR 27-MAR-1998; 98US-0079751.
PA (USSH) US DEPT HEALTH & HUMAN SERVICES.
PI Newton DL, Rybak SM.
f XX WPI; 1999-610847/52.
DR N-Psdb; AAZ08130.
PX New recombinant ribonucleases, used for killing target cells, e.g. for
treatling cancers, viral infections or autoimmune diseases -

PS Claim 22; Page 62; 71pp: English.

XX The present sequence is a Rana catesbeiana oocyte ribonuclease (RacOR1)
XX protein encoded by a cDNA modified for expression in E. coli. Carboxyl
XX terminal end of RacOR1 has a covalently bound ligand binding moiety,
XX which can be a IL2 antibody directed against CD22 on cancerous B cells
XX or human chorionic gonadotropin (hCG) effective against Kaposi's
XX Sarcoma cells. Recombinant ribonucleases can be expressed in bacteria
XX without an N-terminal methionine due to the presence of a signal peptide
XX that is cleaved by bacteria. The soluble expression of ribonuclease
XX allows the proteins to be fused in-frame with ligand binding moieties to
XX form cytotoxic fusion proteins. They can be used for treatment of cancer
XX and autoimmune diseases.

XX Sequence 110 AA:

XX Query Match 98.3%; Score 596; DB 20; Length 110;
XX Best Local Similarity 99.1%; Pred. No. 3e-61;
XX Matches 109; Conservative 0; Mismatches 1; Indels 0; Gaps 0

XX 2 QNMATFOQKHLIIPICNTIMDNNIYVGGQCKRVTFIISATVTKAICTGVINMNL 61
XX 1 QNMATFOQKHLIIPICNTIMDNNIYVGGQCKRVTFIISATVTKAICTGVINMNL 60

XX 62 STTRFQNLTCRTSTTPRCPCYSSRTENYICVNCENYIPHPAIGRCIP 111
XX 61 STTRFQNLTCRTSTTPRCPCYSSRTENYICVNCENYIPHPAIGRCIP 110

XX Db

XX RESULT 3
XX AAY28878
XX AAY28878 standard; Protein; 111 AA.

XX AAY28878;
XX 25-JAN-2000 (first entry)

XX Recombinant Met(-1) RacOR1 Gln1Ser amino acid sequence.

XX Recombinant Met(-1) Rana catesbeiana oocyte ribonuclease Gln1Ser; RacOR1;
XX covalently bound; IL2 antibody; ligand binding moiety; cancerous B cell;
XX Kaposi's sarcoma; human chorionic gonadotropin; hCG; signal peptide;
XX recombinant ribonuclease; cytotoxic fusion protein; cancer; bullfrog;
XX CD22; RNase; autoimmune disease.

XX Rana catesbeiana.
XX Synthetic.

XX OS
XX
XX Key Location/Qualifiers
XX FTH Misc-difference 1
XX FT /note= "Met not found in wild type RacOR1"
XX FT Misc-difference 2
XX TT /note= "Wild type Gln replaced with Ser"

XX W09950398-A2.
XX 07-OCT-1999.
XX 26-MAR-1999; 99WO-US06641.
XX 27-MAR-1998; 98US-0079751.
XX (USSH) US DEPT HEALTH & HUMAN SERVICES.
XX Newton DL, Rybak SM;
XX WPI: 1999-610847/52.
XX DR N-PSDB; AA208135.
XX New recombinant ribonucleases, used for killing target cells
XX treating cancers, viral infections or autoimmune diseases

us-09-622-613b-19.rag

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R. Phillips, Jr.

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radotrophin, hCG.

1. The first step is to identify the problem or question that needs to be answered. This involves understanding the context and the specific requirements of the task.

2. Next, gather relevant information and data. This may involve research, consultation with experts, or collecting data from various sources.

3. Once the information is gathered, it is important to analyze it carefully. This involves identifying patterns, trends, and key factors that influence the outcome.

4. After analysis, the next step is to develop a plan or strategy to address the problem. This plan should be based on the findings of the analysis and should outline the steps to be taken.

5. Finally, implement the plan and monitor the results. This involves putting the plan into action and tracking progress to ensure that the goals are being met.

100

1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 2679, 26

PA (USSH) US DEPT HEALTH & HUMAN SERVICES.
XX
PI Newton DL, Rybak SM;
XX
DR WPI: 1999-610847/52.
DR N-PSDB: AA208132.
XX
PT New recombinant ribonucleases, used for killing target cells, e.g. for
PT treating cancers, viral infections or autoimmune diseases
XX
PS Claim 22: Page 64: 71pp: English.
XX
CC The present sequence is a recombinant Rana catesbeiana oocyte
CC ribonuclease (RacOR1) protein with Met22Leu Met57Leu. Carboxy terminal
CC end of recombinant RacOR1 has a covalently bound ligand binding moiety,
CC which can be a LL2 antibody directed against CD22 on cancerous B cells
CC or human chorionic gonadotropin (hCG) effective against Kaposi's sarcoma
CC cells. Recombinant ribonucleases can be expressed in bacteria without an
CC N-terminal methionine due to the presence of a signal peptide that is
CC cleaved by bacteriophage. The soluble expression of ribonuclease allows the
CC proteins to be fused in-frame with ligand binding moieties to form
CC cytotoxic fusion proteins. They can be used for treatment of cancer and
CC autoimmune diseases.

SQ Sequence 110 AA:
Query Match 99.2%; Score 594; DB 20; Length 110;
Best Local Similarity 99.1%; Pred. No. 2,1e-60;
Matches 109; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 QNMATFOGKHIIKPIICNTILDNNIYIVGGCKRVNFTFISSATTVKALCTGVINLNL 60
DB 1 QNMATFOGKHIIKPIICNTILDNNIYIVGGCKRVNFTFISSATTVKALCTGVINLNL 60
QY 61 STTRFOLNCTRTSITPRCPYSSRTETNYICVCKENQYPVHFGIGRCP 110
DB 61 STTRFOLNCTRTSITPRCPYSSRTETNYICVCKENQYPVHFGIGRCP 110

RESULT 2
AA28876
ID AAY28876 standard; Protein: 111 AA.
XX
AC AAY28876;
XX
DT 25-JAN-2000 (first entry)
XX
DE Recombinant Met(-1) RacOR1 Met22Leu Met57Leu-(His)6 protein.
XX
KW Met(-1) Rana catesbeiana ribonuclease Met22Leu Met57Leu-(His)6; RacOR1;
KW recombinant; CD22; covalently bound; LL2 antibody; ligand binding moiety;
KW cancerous B cell; Kaposi's sarcoma; human chorionic gonadotropin; hCG;
KW signal peptide; recombinant ribonuclease; cytotoxic fusion protein;
KW cancer; bullfrog; RNase; autoimmune disease.
XX
OS Rana catesbeiana.
OS Synthetic.
XX
FH Key Location/Qualifiers
FT MISC-difference 1 /note= "(His)6 histidine tag attached to N-terminal Met"
FT MISC-difference 1 /note= "Met not found in wild type RacOR1"
FT MISC-difference 23 /note= "Wild type Met replaced with Leu"
FT MISC-difference 58 /note= "Wild type Met replaced with Leu"
XX
PN WO9950398-A2.
XX
PD 07-OCT-1999.
XX
PF 26-MAR-1999; 99WO-US06641.

XX
PR 27-MAR-1998; 98US-0079751.
XX
PA (USSH) US DEPT HEALTH & HUMAN SERVICES.
XX
PI Newton DL, Rybak SM;
XX
DR WPI: 1999-610847/52.
DR N-PSDB: AA208133.
XX
PT New recombinant ribonucleases, used for killing target cells, e.g. for
PT treating cancers, viral infections or autoimmune diseases
XX
PS Claim 22: Page 66: 71pp: English.
XX
CC The present sequence is a recombinant Rana catesbeiana oocyte
CC ribonuclease (RacOR1) protein with Met at position 1 attached to a
CC (His)6 tag, Met23Leu and Met58Leu. Carboxy terminal end of recombinant
CC RacOR1 has a covalently bound ligand binding moiety, which can be a LL2
CC antibody directed against CD22 on cancerous B cells or human chorionic
CC gonadotropin (hCG) effective against Kaposi's sarcoma cells. Recombinant
CC ribonucleases can be expressed in bacteria without an N-terminal
CC methionine due to the presence of a signal peptide that is cleaved by
CC bacteriophage. The soluble expression of ribonuclease allows the proteins to
CC be fused in-frame with ligand binding moieties to form cytotoxic fusion
CC proteins. They can be used for treatment of cancer and autoimmune
CC diseases.

SQ Sequence 111 AA:
Query Match 99.2%; Score 594; DB 20; Length 111;
Best Local Similarity 99.1%; Pred. No. 2,1e-60;
Matches 109; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 QNMATFOGKHIIKPIICNTILDNNIYIVGGCKRVNFTFISSATTVKALCTGVINLNL 60
DB 2 QNMATFOGKHIIKPIICNTILDNNIYIVGGCKRVNFTFISSATTVKALCTGVINLNL 61
QY 61 STTRFOLNCTRTSITPRCPYSSRTETNYICVCKENQYPVHFGIGRCP 110
DB 62 STTRFOLNCTRTSITPRCPYSSRTETNYICVCKENQYPVHFGIGRCP 111

RESULT 3
AAY28872
ID AAY28872 standard; Protein: 110 AA.
XX
AC AAY28872;
XX
DT 25-JAN-2000 (first entry)
XX
DE Rana catesbeiana oocyte ribonuclease (RacOR1) amino acid sequence.
XX
KW Rana catesbeiana oocyte ribonuclease; RacOR1; covalently bound; CD22;
KW LL2 antibody; ligand binding moiety; cancerous B cell; Kaposi's sarcoma;
KW human chorionic gonadotropin; hCG; recombinant ribonuclease; bullfrog;
KW signal peptide; cytotoxic fusion protein; cancer; autoimmune disease;
KW RNase.
XX
OS Rana catesbeiana.
OS Synthetic.
XX
FH Key Location/Qualifiers
FT MISC-difference 1 /note= "Met not found in wild type RacOR1"
FT MISC-difference 23 /note= "Wild type Met replaced with Leu"
FT MISC-difference 58 /note= "Wild type Met replaced with Leu"
XX
PN WO9950398-A2.
XX
PD 07-OCT-1999.
XX
PF 26-MAR-1999; 99WO-US06641.
XX
PR 27-MAR-1998; 98US-0079751.
XX
PA (USSH) US DEPT HEALTH & HUMAN SERVICES.
XX
PI Newton DL, Rybak SM;